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PATENT COOPERATION TREATY

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PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 10976P4 WO/CMB	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/GB 03/00921	International filing date (day/month/year) 05.03.2003	Priority date (day/month/year) 06.03.2002
International Patent Classification (IPC) or both national classification and IPC A47L15/44		
Applicant RECKITT BENCKISER N.V. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:
 - I Basis of the opinion
 - II Priority
 - III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV Lack of unity of invention
 - V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI Certain documents cited
 - VII Certain defects in the international application
 - VIII Certain observations on the international application

Date of submission of the demand 06.10.2003	Date of completion of this report 21.06.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Papadimitriou, S Telephone No. +49 89 2399-



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB 03/00921

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-12 as originally filed

Claims, Numbers

1-12 as originally filed

Drawings, Sheets

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

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5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)
see separate sheet
6. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees, the applicant has:
 - restricted the claims.
 - paid additional fees.
 - paid additional fees under protest.
 - neither restricted nor paid additional fees.
2. This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
 - complied with.
 - not complied with for the following reasons:
4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:
 - all parts.
 - the parts relating to claims Nos. .

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Yes: Claims	1-11
	No: Claims	12
Inventive step (IS)	Yes: Claims	
	No: Claims	1-11
Industrial applicability (IA)	Yes: Claims	1-12
	No: Claims	

2. Citations and explanations**BEST AVAILABLE COPY**

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see separate sheet

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Re Item I

Basis of the report

1. Independent claim 1

Subsisting independent claim 1 apparently results from a combination of originally filed claims 1 and 13. However, subsisting claim 1 does not include the limitation that the plate is wheel-like shaped, a feature defined in originally filed dependent claim 13. Although current claim 1 specifies that the unit doses are arranged around the circumference of the plate this does not necessarily limit the shape of the plate to a circular one as the term circumference can, in its broadest interpretation, refer to the distance around something (an object). As the originally filed application does not foresee an embodiment other than a wheel-like, circular plate the excision of the term "wheel-like" leads to a contravention of the provisions of Article 34(2)(b) PCT.

The assessment of the compliance of claim 1 with the provisions of Article 33(1) PCT was carried out as if the unallowable excision of subject-matter had not been made.

Re Item IV

Lack of unity of invention

The application lacks unity *a priori*. This Authority considers that there are two (2) inventions covered by the claims indicated as follows:

I: Claims 1-11 directed to a device for receiving and holding a plurality of unit doses of detergent composition.

II: Claim 12 directed to a blister pack comprising a unit dose of a detergent or detergent additive gel. The reference in claim 12 to any of claims 1 to 10 is incorrect, as claim 12 is not a claim directed to a preferred embodiment of the device of claim 1, rather it is directed to a different device, namely a blister pack. Claim 12 is, therefore, an independent claim.

The reasons for which the inventions are not so linked as to form a single general inventive concept, as required by Rule 13.1 PCT, are as follows:

Current claims 1 to 11 are directed to the provision of a device allowing a two-step

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release of a detergent composition for solving the objective technical problem of minimising the energy required for releasing a detergent into a dishwasher during a ware washing process.

In contrast, subsisting claim 12 is directed to a device (blister pack) presumably for storing a particular warewashing composition for solving the objective technical problem of storage of a unit dose.

Consequently, neither the objective problems underlying the subjects of the claimed inventions, nor their solutions defined allow for a relationship to be established between the said inventions, which involves a single general inventive concept.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

A. First invention

1. State of the art

Reference is made to the following documents:

D8: WO-A-01/07703

D1: GB-A-838637

2. Independent claim 1

2.1 It is not clear from the manner claim 1 is drafted whether the housing and the plate function in a combinatorial manner and as such the claim is open to objection under Article 6 PCT. For determining the compliance of the claim with the provisions of Article 33(1) PCT it was considered that the housing **comprises** the plate, a feature which is supported by the description.

2.2 In the terms of claim 1, document D8 discloses a device (1,4,5,6) for receiving and holding a plurality of unit doses of detergent composition (cf. pg. 10, par. 5) for individually dispensing said unit doses to an automatic dishwasher (cf. pg. 8, par. 2),
the device comprising:
- a housing (4 - fig. 3) adapted to receive said plurality of unit doses;
- each unit dose being separately contained in a compartment of a **wheel-like**

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- * plate (5) comprised by the housing, the unit doses being arranged along the circumference of the plate (cf. fig. 3);
 - a compartment opening means (7,13 - pg. 7, par. 3).
 - 2.3 The subject-matter of independent claim 1 differs from the one disclosed in D8 in that the claimed device comprises a water access allowing means to allow water access to the unit dose contained in the opened compartment or ejected therefrom within a controlled time period in order to allow dissolution of the unit dose into the wash liquor of the dishwashing machine.
 - 2.4 The technical effect associated with this distinguishing feature is the separation of the unit dose dispensing and dissolution steps leading to a two-step release of a detergent composition.
 - 2.5 The objective technical problem to be solved is the minimisation of the energy required for releasing a detergent into a dishwasher during a ware washing process.
 - 2.6 Document D1 in substance addresses the objective technical problem of a two-stage dishwasher detergent release (cf. pg. 1, lines 26-31) and shows a device comprising unit doses (21, 22 - fig. 4) of a detergent composition. The device includes a water access allowing means (9) to allow water access to a unit dose (21) contained in a unit dose compartment (20 - fig. 4) within a controlled time period (cf. pg. 2, lines 24-31) in order to allow dissolution of the unit dose into the wash liquor of the dishwashing machine.
 - 2.7 Therefore, the present application does not comply with the provisions of Article 33(3) PCT because the subject-matter of subsisting independent claim 1 does not involve an inventive step in respect of prior art as defined in the regulations (Rule 65 PCT).
3. Dependent claims 2 to 11
- The subject-matter of these dependent claims is either known from D8 or D1 or would appear to constitute standard design procedures followed by a skilled person and not necessitating the employment of an inventive step.
- Therefore, the present application does not comply with the provisions of Article 33(3) PCT because the subject-matter of subsisting dependent claims 2-11 does

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not involve an inventive step in respect of prior art as defined in the regulations (Rule 65 PCT).

4. Remarks

4.1 Dependent claim 11

The subject-matter of subsisting claim 11 is not directed to a preferred embodiment of the device of claim 1 and as such is not in compliance with the provisions of Rule 6.4(a)(b) PCT.

- 4.2** The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

B) Second Invention

1. State of the art

Reference is made to the following document:

D1: GB-A-838637

2. Independent claim 12

In the terms of claim 12, document D1 disclose a blister pack (4,21,22) containing a unit dose of a detergent (cf. pg. 1, line 13).

Consequently, the present application does not comply with the provisions of Article 33(2) PCT because the subject-matter of independent claim 12 is not novel in respect of prior art as defined in the regulations (Rule 64(1)-(3) PCT).

3. Remarks

The features of the claim are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

5

Claims

1. Device for receiving and holding a plurality of unit doses of a detergent composition and for individually dispensing the unit doses into an automatic dishwashing machine over a plurality of washing cycles, wherein the device comprises
10

(i) a housing adapted to receive the plurality of unit doses, each separately contained in a compartment of a plate, the unit doses being arranged along the circumference thereof;

15 (ii) means for opening a compartment or for ejecting a unit dose therefrom; and

20 (iii) means to allow access of wash liquor to the unit dose contained in the opened compartment or ejected therefrom, within a controlled time period to allow dissolution of the unit dose into wash liquor of the machine.

25 2. Device according to claim 1, wherein a holding pocket is provided to receive and hold the unit dose when ejected from the compartment, and means to control the access of wash liquor to said holding pocket.

3. Device according to claim 1, wherein the access of wash liquor to the unit dose (2;2'), when retained in

5 the opened compartment, is via a passageway, the device having means to controllably open and close the passageway.

4. Device according to claim 2 or 3, wherein the holding pocket or passageway is provided with a hinged or
10 sliding door.

5. Device according to any of the preceding claims, wherein the access of wash liquor to the unit dose retained in the opened compartment or ejected therefrom is controlled by means reactive to a
15 condition reached during the washing cycle of the machine.

6. Device according to claim 5, wherein the access of wash liquor to the unit dose retained in the opened compartment or ejected therefrom is controlled by
20 means reactive to the temperature of the wash liquor.

7. Device according to any of claims 1 to 4, wherein the access of wash liquor to the unit dose retained in the opened compartment or ejected therefrom is time controlled.

25 8. Device according to any of the preceding claims, wherein the means for ejecting the unit dose from the compartment comprises an ejector acting on a face of the compartment.

5 9. Device according to any of claims 1 to 7, wherein the
means for opening the compartment comprises a piercing
or cutting means to penetrate a wall of the
compartment.

10 10. Device according to any of the preceding claims,
10 being adapted to be a portable, preferably self-
standing, device.

11. Device according to any of the preceding claims,
wherein the unit dose is a detergent or detergent
additive tablet.

15 12. Blister pack according to any of claims 1 to 10,
wherein the unit dose is a detergent or detergent
additive gel.